

1 What I claim is:

2  
3 1. A genetically modified human microglia cell maintained as a stable cell line in-vitro  
4 comprising:

5 a modified microglia cell of human origin which

- 6 (i) has demonstrable phagocytic properties;
- 7 (ii) produces progeny continuously while maintained in culture;
- 8 (iii) presents at least CD11b and CD68 as surface antigens; and
- 9 (iv) contains human genomic DNA which has been genetically modified to
- 10 include a viral vector carrying at least one DNA segment encoding an exogenous gene for
- 11 intracellular expression.
- 12

13 2. The genetically modified human microglia cell as recited in claim 1 wherein said

14 viral vector is an amphotropic retroviral viral vector.

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16 3. The genetically modified human microglia cell as recited in claim 1 wherein said

17 viral vector includes as exogenous DNA sequence encoding a v-myc gene.

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19 4. The genetically modified human microglia cell as recited in claim 1 further

20 comprising the presence of the surface antigen RCA-lectin;

21

22 5. The genetically modified human microglia cell as recited in claim 1 further

23 comprising the presence of P<sub>2Y1</sub> receptors.

1 6. The genetically modified human microglia cell as recited in claim 1 further  
2 comprising the presence of the surface antigens HLA-ABC (MHC class I); and HLA-DR  
3 (MHC class II).  
4

5 7. The genetically modified human microglia cell as recited in claim 1 wherein said cell  
6 expresses at least one active substance selected from the group consisting of cytokines and  
7 chemokines.  
8

9 8. The genetically modified human microglia cell as recited in claim 6 wherein said  
10 expressed active substance is selected from the group consisting of MIP-1 $\beta$ , MCP-1, IL-1 $\beta$ ,  
11 IL-6, IL-8, IL-12, and IL-15.  
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13 9. The genetically modified human microglia cell as recited in claim 1 wherein said cell  
14 is in a non-stimulated state.  
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16 10. The genetically modified human microglia cell as recited in claim 1 wherein said cell  
17 is in a stimulated state.  
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19 11. The genetically modified human microglia cell as recited in claim 10 wherein said  
20 stimulated cell overexpresses at least one pharmacologically active composition selected  
21 from the group consisting of cytokines and chemokines.  
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